

INTEL IXA UNIVERSITY PROGRAM

Title: Network Processor Architecture Laboratory

PI: L.N. Bhuyan, Period: Unrestricted Gift, October 2002

The purpose of the project is to establish a Network Processor Architecture Laboratory in the Computer Science and Engineering Department at University of California, Riverside (UCR) with the help of Intel Corporation. The laboratory will consist of a few high-performance workstations with IXP 1200 network processor boards connected over a Gigabit Ethernet.

The facility will be used for the laboratory assignment with a newly developed course on Computer Architecture (CS 162) to be offered during Spring 2003. It will also be used for advanced level undergraduate and graduate projects associated with our architecture and networking courses.

The laboratory will be used for research in the area of design and analysis of high-performance routers, and layer 4, and 5 switches. Efficient algorithms, and applications like classification, forwarding, TCP, security, QoS, and load balancing, will be developed on the IXP 1200 processor, and their performance will be measured.